CROMATIG 625

GTAW - TIG
Stainless Steel

Date:	06/10/2023
Revision:	13

Description:

Cromatig 625 is primarily intended for welding Inconel 625 and similar composition nickel base alloys which are used for their excellent corrosion and oxidation resistance combined with an exceptionally high resistance to pitting corrosion and chloride induced stress corrosion cracking. Very suitable for a wide range of dissimilar joint combinations between nickel base alloys, mild and low alloy steels and stainless steels, especially where high temperature service conditions prevail. Can be used to clad carbon steels with a high strength, highly corrosion resistant surface.

Applications:

Suitable for welding the nickel base alloys 625 and 825 but also 6 Mo steels (ASTM S31254) and 9% Ni steels for cryogenic applications..
Overlay welding of carbon or low alloy steels and dissimilar joints.

Welding current:

DC-

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min						20,0	60,0
Typical	0,01	0,10	0,05	0,005	0,005	22,0	64,5
Max	0,03	0,50	0,50	0,015	0,015	23,0	

	Mo	Cu	Al	Ti	Fe	Nb[2]
Min	8,0					3,15
Typical	9,0	0,10	0,070	0,18	0,3	3,6
Max	10,0	0,50	0,40	0,40	5,0	4,15

Shielding gas:

I1, 99.99% Ar, 6-12 l/min

Stamping

Elga, AWS, Wst, EN, Batch

Corrosion resistance

Very good resistance to general and intergranular corrosion. Maximum resistance (practically immune) to pitting corrosion, crevice corrosion and stress corrosion cracking in chloride bearing environments.

Scaling temperature:

The weld metal is resistant to oxidation in air up
to 1150°C. (Very high tensile strength and yield strength up to approx. 850°C. Rp 0.2%=300 MPa,
Rm=400 MPa)

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		480 MPa
Tensile Strength, Rm:	≥ 760 MPa	780 MPa
Elongation, A5		35%
Impact energy, CV:		–196°C • 80 J

Classification:

EN ISO 18274	S Ni 6625 (NiCr22Mo9Nb)
AWS A5.14	ERNiCrMo-3

Approvals:

CE
TÜV

Product data:

Ø x Length mm	Packet weight
1,6 x 1000	5 kg
2,0 x 1000	5 kg
2,4 x 1000	5 kg

Note

Ta max 0.30